PRESENTATION OF T-MOBILE USA
November 18, 2004

***In the Matter of Proposed Changes to the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields*, ET Docket No. 03-137**

PROCESS FOR COMPLIANCE DETERMINATIONS

- Key Objective of Proceeding—"Revise and harmonize the criteria for determining whether transmitters used in a number of services are subject to routine evaluation for compliance with the RF exposure limits or are categorically excluded from such evaluation procedures."

- With Adoption of New Rules for Evaluating RF Compliance of Transmitters, Public Interest Served by FCC Clearly Restating Sources of Authority To Do So.

  - Some zoning ordinances/proceedings place burden on FCC licensee to demonstrate, through detailed technical and factual showing, that new transmitter construction will be compliant with FCC RF rules. [Examples attached].
  - Local officials make binding determinations of initial/on-going compliance with FCC's RF Rules.
  - New rules likely to prompt new/modified ordinances.

- Restate/clarify, that local government with concerns about licensee compliance must raise those matters with the FCC.

  - **Communications Act** ---Sections 301 (exclusive jurisdiction over regulating "transmission and reception" of radio signals both interstate and intrastate); 303 (general powers over spectrum management, operations and licensed use); 308 & 309 (licensing); 332(c)(7) (enact and enforce RF emission rules).
  - **47 C.F.R. §1.1307(b) – (e)---** All spectrum licensees must comply with RF rules as condition of authorization.
  - ***Cellular Phone Task Force v. FCC*, 205 F.3d 82 (2d Cir. 2000), *cert. denied*, 531 U.S. 1070 (2001)**.---RF Rules upheld and FCC alone authorized to determine licensee compliance.
  - **Local Official's Guide to RF---**Not legally binding, but unambiguous that local officials must bring concerns about licensee compliance with FCC's RF rules to FCC.

- FCC Licensees Presumed Compliant, But Several Ways For Interested Parties to Raise Compliance Concerns With FCC.

  - If concern with existing transmitter, petition FCC to require that licensee perform environmental assessment. § 1.1307(c) – (d).
  - File informal or formal complaint with FCC. Burden on complainant to provide facts under oath/supported legal arguments establishing *prima facie* violation.

- FCC may, on its own motion, perform fact-finding under 308(b)(7), or institute proceedings for administrative sanctions under 312 of the Act. Burden of proceeding and proof on FCC.

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Thurston, Washington

Title 20 ZONING

Chapter 20.33 WIRELESS COMMUNICATION FACILITIES AND ANTENNA SUPPORT STRUCTURES

20.33.050 Application requirements.

1. Requirements for All Applications. In addition to the requirements in Section 20.60.030, the following information shall be submitted as part of the application for all WCFs and other antenna support structures subject to this chapter.

a. If the applicant is not the landowner, the landowner(s) shall be considered co-applicant(s) and shall sign the application. If any applicant is a corporation, trust, association, or other organized group or legal entity, it shall provide the date of such creation, and, if a foreign corporation, a copy of the certificate of authority filed with the state of Washington, Secretary of State's Office.

b. An affidavit signed by the applicant, landowner (co-applicant), and the antenna support structure owners, if different, indicating that:

i. They agree to dismantle and remove the WCF/antenna support structure and restore the site to its approximate original condition within one hundred and eighty days following receipt of a letter from the county indicting that the facility is deemed abandoned or in violation of this chapter, consistent with Section 20.33.110; and,

ii. In the case of freestanding WCFs/antenna support structures, they consent to co-location, at reasonable terms, of as many antennas and related equipment as feasible, including those of other communication providers, on the applicant's structure/site.

c. Except for a co-location proposal, evidence justifying the need for a WCF/antenna support structure in the proposed location, consistent with Section 20.33.080, and at the proposed height. This shall include, at minimum, a detailed description of the methodology used to reach the height and locational decisions.

The applicant shall submit for each WCF/antenna support structure that they own or operate within two miles of the proposed site the exact location, ground elevation, and height of the antenna support structure and antennas. The applicant shall also submit a radiated signal propagation coverage plot for each of these existing facilities. The county may require additional information as necessary for a third party reviewer to verify the need for the proposed facilities, as provided for in Section 20.33.060.

d. Documentation that the WCF/facility, including any back-up power generators, will not cause noise or pollution exceeding the limits established by state law.

e. If the applicant is also the WCF provider, proof that the applicant is licensed by the FCC, or not required to be licensed.

f. If the applicant is not the WCF provider, proof of lease agreements with a FCC licensed WCF provider if such provider is required to be licensed by the FCC.

g. Except for a co-location proposal, documentation, certified by a qualified engineer licensed in the state of Washington, indicating that there are no co-location possibilities as an alternative to installation of the proposed WCF/antenna support structure, consistent with Section 20.33.070.

h. The applicant shall submit for the proposed facility a radiated signal propagation coverage plot, power density calculations expressed as micro-watts per square centimeter and other technical documentation, signed by a radio frequency engineer licensed in the state of Washington, as necessary to demonstrate the proposed facility's compliance with FCC guidelines/standards for radiofrequency electromagnetic field strength. The county may require additional information as necessary for a third party reviewer to determine compliance with the provisions of this chapter, as provided for in Section 20.33.060.

i. Documentation that the antennas and support structure are safe and the surrounding areas will not be negatively affected by antenna/support structure failure, falling ice, or other debris.

j. The proposed color(s) of the facility including antennas and exposed conduit.

k. In addition to the information requested on the application, the applicant shall submit the legal name, address or principal place of business, and phone number of the following:

i. The person to be contacted in the event an emergency involves the WCF/antenna support structure. (This person should be available on a twenty-four-hour basis and authorized to act on behalf of the applicant regarding an emergency situation. The applicant shall be responsible for keeping such information current); and

ii. The contact person for each WCF/communication provider that proposes installation of facilities at the site.

2. Additional Requirements for Freestanding WCFs, Remote Freestanding WCFs, and Other Freestanding Antenna Support Structures. The following additional information shall be submitted for freestanding WCFs, remote freestanding WCFs, and other freestanding antenna support structures.

a. The measured distance between the proposed WCF/antenna support structure and the nearest residentially zoned property and the nearest property with an existing residence or, in the case of WCFs or other antenna support structures proposed to be located in rights-of-way, the location of structures occupied at least three days a week and building sites for such structures (measured to the minimum setback line specified in the applicable zoning district) within the distance equal to one hundred and ten percent of the proposed WCF/antenna support structure's height, including antennas.

b. A statement signed by the applicant stating that the WCF/antenna support structure will comply with all Federal Aviation Administration (FAA) regulations and documentation indicating whether the FAA will require attachment of a light/signal to the proposed antenna support structure.

c. A statement signed by the applicant documenting that the WCF/antenna support structure will accommodate the co-location of at least two additional antennas/antenna arrays for future users, or an explanation of why such design is not feasible for technical or physical reasons (e.g., additional antennas may be inappropriate on a camouflaged WFC). This requirement does not apply to utility poles.

d. A copy of a certified letter sent to all other licensed wireless communication providers serving the county indicating opportunities to co-locate and all responses to the letter.

e. Documentation that adequate public safety measures will be provided, including anti-climbing devices.

f. A statement indicating compliance with or exemption from the National Environmental Policy Act (NEPA) and all documents filed under NEPA.

g. If the site proposed to accommodate the proposed WCF/antenna support structure is not forested, documentation showing that forested sites within one mile of the proposed site, that would afford screening of the antenna support structure from rights-of-way and adjacent properties, are not available or technically feasible.

3. Additional Requirements for Freestanding WCF/Antenna Support Structures. For freestanding WCFs/antenna support structures, the following additional studies/information shall be submitted:

a. Balloon testing shall be performed and photographs shall be submitted as follows:

i. A three-foot diameter, brightly colored balloon shall be flown by the applicant at the proposed antenna support structure's maximum height and proposed location. The balloon shall be flown for at least eight consecutive daylight hours between seven a.m. and seven p.m.

ii. Fourteen days in advance of the balloon test, the applicant shall provide notice of the test to property owners within the notice radius required for the permit and the public as specified in Section 20.60.020(3) and inform the development service department of the test in writing. The notice shall include the test date, an alternate date in case of poor visibility or strong winds on the initial date, the time period when the test will be conducted, and the location.

iii. The applicant shall submit photographs of the balloon and site taken from the following perspectives: at the property line, at approximately one-half mile from the proposed antenna support structure site, and approximately one mile from the site; all beginning at approximately true north and continuing clock-wise at approximately forty-five degree intervals. The development services department may waive this requirement where access is not possible, where there are no residences or public roads at the specified vantage points, and for sites

Title 20 ZONING

Chapter 20.33 WIRELESS COMMUNICATION FACILITIES AND ANTENNA SUPPORT STRUCTURES

20.33.060 Third party technical review.

Third party review shall be required to confirm compliance with FCC guidelines/standards, as provided for in subsection (2) of this section; to verify the applicant's analysis regarding co-location, as provided for in Section 20.33.070 and when determined by the county to be reasonably warranted in order to verify the need for the requested antenna support structure's height per Section 20.33.080(6)(f).

The county also may hire third party experts, as it deems necessary, to assist with other determinations to be made in accordance with this chapter as part of the permit review process and any subsequent project monitoring. Third party review may include, but is not limited to, a review of: (1) the technical accuracy and completeness of submissions; (2) the technical applicability of analysis techniques and methodologies; (3) the validity of conclusions reached by the applicant; (4) field testing of radio frequency emissions; and/or (5) addressing other specific technical issues as identified by the county or approval authority.

The selection of the third party expert shall be by mutual agreement by the applicant and the county from a list of qualified consultants provided by the county. The cost of the third party review, testing, inspection and monitoring required by the county, consistent with the provisions of this chapter, shall be borne by the applicant or current permittee. Based on the results of the third party review, the county may require changes to the applicant's submittal or require remedial action.

1. Consultant Qualifications.

a. Consultants hired to conduct third party review shall have an appropriate combination of training, experience, and/or certification in one of the following fields: telecommunications/radiofrequency engineering; assessment of electromagnetic fields (e.g., a registered electrical engineer accredited by the state of Washington who holds a Federal Communications General Radio Telephone Operator License); structural engineering; and, if determined by the county to be necessary, other fields.

b. Consultants performing third party review in accordance with the provisions of this chapter shall work under the direction of the development services department. Copies of the consultant's report shall be made available to the applicant and the public not less than thirty days prior to any administrative decision or a public hearing before the hearing examiner regarding the proposal, as applicable. The applicant and the public shall be given an opportunity to respond to the report prior to issuance of a decision regarding the application by the approval authority.

2. Confirming Compliance with FCC Regulations.

a. Proposed WCFs, radio, and television antennas, transmitters, receivers, and repeaters shall be tested by a third party as described in this subsection (2) to confirm compliance with all applicable FCC regulations/guidelines regarding radio frequency electromagnetic field exposure if:

i. Analysis performed by the applicant's qualified engineer indicates that existing and proposed facilities at the subject site are expected, when operating at full power, to produce radio frequency emissions exceeding five percent of the amount allowed per FCC radio frequency electromagnetic field exposure guidelines (47 C.F.R. Subsection 1.1307(b) and as hereafter amended); or

ii. The facilities are not categorically exempt, per FCC requirements (47 C.F.R., Subsection 1.1301 and as hereafter amended), from submission of an environmental assessment to the FCC; or

iii. The facilities are proposed to be located within one hundred feet of a structure occupied at least three days a week.

b. The third party reviewer shall submit a report setting forth the following:

i. Measurements of existing/ambient radio frequency radiation (RFR) at the site proposed for a new facility and at appropriate distances from it;

ii. An estimate of maximum RFR from the proposed facility plus existing/ambient RFR;

iii. Existing/ambient RFR plus estimated maximum RFR from the proposed facility, plus the estimate of maximum RFR from the addition of co-located facilities, if any; and

iv. Certification by a radio frequency engineer, stating that the RFR measurements are accurate and that measured and estimated RFR meet FCC guidelines/standards.

c. Within thirty days of becoming fully operational, any facility requiring testing under subsection (2)(a) of this section, shall be tested by the county or a third party reviewer, at the permittee's expense, to obtain initial field measurements of radio frequency emissions with all of the antennas at the site operating at full power. Failure to facilitate such testing shall be grounds for revoking the special use permit. A report shall be submitted to the county documenting the cumulative field measurements of radio frequency emissions and comparing the results with applicable FCC guidelines/standards.

d. The county or third party shall perform tests, at the permittee's expense, and submit a report to the development services department consistent with subsections (2)(b) and (c) of this section for any modification of an existing facility for which testing is required under subsection 20.33.060(2)(a) that would increase its radio frequency emissions, including the activation of any additional channels. The permittee shall inform the development services department of such proposed modification or change in use of the facility at least five working days before it becomes operational.

e. If at any time radio frequency emission tests show that the facility exceeds any FCC standards or guidelines, the county shall notify the licensed carrier(s), the FCC, and surrounding property owners within five hundred feet. The county shall revoke the special use permit for the subject facilities upon notification from the FCC that the facilities are out of compliance with FCC guidelines/standards. (Ord. 13058 § 2 (part), 2003)

approved for clusters of antenna support structures, provided that the proposed antenna support structure does not exceed the height of existing antenna support structures by more than fifteen feet.

iv. Computer simulations may be submitted to supplement, but not replace, the photographs required above.

b. If applicable, the method and color of required fencing and the method of camouflage and illumination. (Ord. 13058 § 2 (part), 2003)

Spotsylvania County, Virginia

Conformance to Telecommunications Facility Placement Policy

1. The Board of Supervisors is mindful of the County's investment in 800 MHZ radio technology to provide for County-wide dispatch of fire, rescue and law enforcement personnel to protect and to serve our citizens. All proposals for the installation of telecommunications facilities shall acknowledge the critical role of the County's radio system and shall warrant that no interference with the County's radio system shall result from such installation. All new towers, monopoles, or like structures hereafter constructed in the County shall include, at no cost to the County, space, as the County may require, for installation by the County of components for its communications system(s) (including both tower space and sheltered equipment space on the ground).

2. The County is particularly mindful of the uniqueness of its historic resources. Every effort shall be made to minimize adverse impacts on such resources in the siting of telecommunications facilities. All proposals for the erection of new monopoles, towers or like structures or for the co-location of telecommunications antennae and/or equipment on existing structures which will be visible from highway corridor overlay districts and historic overlay district shall demonstrate that no feasible alternative exists to the location proposed which would not be visible from such districts.

3. Wherever possible, telecommunications facilities shall be located on existing structures including, but no limited to, existing utility structures, water towers, antenna towers, monopoles, etc. In all cases where the erection of a new tower, monopole or other structure is proposed, strict proof satisfactory to the County shall be required from the applicant to demonstrate that co-location on an existing structure is technologically infeasible.

4. In order to effectively promote beneficial co-location, the Planning Department shall maintain an inventory of structures in the County that are suitable for such purposes. In all cases where the erection of a new tower, monopole, or other structure is proposed, the applicant shall be required to satisfactorily demonstrate that it has studied and exhausted all possibilities for co-location, whether or not the apparent potential co-location(s) are shown on the County's inventory.

5. In order to effectively minimize visual clutter and promote beneficial collocation and efficient, cost-effective use of County facilities, co-location on County structures shall be promoted in all cases. Where a County structure is present but lacks sufficient height to accommodate the proposed antennae and related equipment, proposals for the heightening or replacement of such structure with a single structure to serve both the County's purpose (at no cost to the County) and the telecommunications purposes shall be preferred. All proposals for the replacement or enhancement of an existing County structure shall include a detailed summary of the proposed structure's capacity and market potential to provide space for co-location by others, including proposed rents for antenna space on the structure, scaled according to height.

6. In order to effectively minimize visual clutter and promote beneficial collocation and efficient, cost-effective use of existing non-County structures, collocation on non-County structures shall be promoted in all cases where no usable County structure is available. In all cases where co-location on a non- County structure or the erection of a new tower, monopole, or other structure is proposed, the applicant shall be required to demonstrate that it has studied and exhausted all possibilities for co-location on existing County structures, whether or not the apparent potential co-location(s) are shown on the County's inventory. In all cases where co-location on a non-County structure is proposed, in the vicinity of public property which might accommodate the erection of a monopole, tower, or similar structure, the applicant shall provide a locational analysis comparing the proposed co-location with such a structure.

7. In order to effectively minimize visual clutter and promote beneficial collocation and efficient, cost-effective use of County resources, all proposals for the construction of a new monopole, tower, or similar structure shall include a detailed analysis of the market justification for the addition of such structure. All such proposals shall also include a detailed summary of the proposed structure's capacity and market potential to provide space for co-location by others, including proposed rents for antenna space on the structure, scaled according to height. All such proposals shall include a locational analysis detailing the relationship of the proposed site to the County's inventory of structures and potential sites and fully explaining the applicant's rationale for the selection of the proposed site. Preference shall be given to proposals to lease County property for the development of such structures.

8. Every effort should be made to minimize visual clutter and to ensure that telecommunications facilities are as unobtrusive and harmonious with the community as the technology permits. In order to be fairly and thoroughly evaluated, all proposals for the development and installation of telecommunications facilities and equipment must include a visual impact study including a graphic or photographic rendering accurately depicting the finished appearance of the proposed installation, including its juxtaposition with neighboring buildings.

9. Consistent with the County's desire to limit the proliferation of new monopoles, towers, and like structures, any such structures which are approved for development shall be sized so as to maximize the potential for future co-location. At a minimum, proposals for new lattice-type towers and similar structures should include a detailed explanation of the structure design and loading sufficient to demonstrate the capacity of the proposed structure to support at least 3 additional fully sectorized cellular co-locators (in addition to reserving load capacity for possible future installation of equipment by the County pursuant to paragraph 1 of this Policy). At a minimum, proposals for new monopoles should include a detailed explanation of the structure design and loading sufficient to demonstrate the capacity of the proposed structure to support at least 2 additional fully sectorized cellular co-locators (in addition to reserving load capacity for possible future installation of equipment by the County pursuant to paragraphs 1 of this Policy).

10. To ensure the safety of County residents, and particularly children, all proposals for the siting of telecommunications facilities, regardless of whether the erection of a new structure is involved, shall address the issue of safety and security of both the structure and any equipment cabinet or shelter, whether existing or proposed to be installed, on the ground.

11. Every effort shall be made to make each telecommunications installation as aesthetically pleasing as possible. All proposals for the installation of telecommunications antennae and should include a detailed justification demonstrating that the proposed installation includes the least obtrusive antennae, etc. available that will perform in accordance with the engineering parameters of the proposer. All structures shall be designed to maximize their harmony of color, form, etc., so far as possible, with existing features of the site. Antennae and other equipment installed on each site shall be painted to match the approved tower or structure to which they are affixed and shall otherwise be in harmony with the tower or structure.

12. Wherever they may be visible from a property line or public right-of-way, tower or monopole bases, related equipment shelters and security fencing shall be screened from view by vegetative screening as prescribed by the Director of Planning.

13. New monopoles, towers and like structures and installations upon existing structures shall be designed not to exceed an overall height of 199 feet, in order to avoid, wherever possible, the necessity of lighting as required by Federal regulations.

14. If requested by the Director of Planning, the information required in this policy shall be certified by a professional engineer acceptable to the Director of Planning.

15. At a minimum, the set-back or buffer area surrounding any tower, monopole, or other structure supporting telecommunications equipment shall be equal to the height of such tower, monopole, or other structure. This requirement is subject to waiver or modification (by the Director of Planning in the case of "by-right" development) where such structures are proposed to be erected adjacent to public facilities and/or on public property, or as part of an "antenna farm" or clustering of similar structures.

16. Any and all of the standards set forth in this policy are subject to waiver or modification by the Board of Supervisors in the context of any individual Special Permit application relating to the development of telecommunications facilities.

17. Upon installation and testing of telecommunications antenna(e) and/or related equipment on a new or existing structure or site, the operator thereof shall provide to the Director of Planning a statement from a licensed engineer certifying that NIER

(nonionizing electromagnetic radiation) emitted from the tower does not result in a ground level exposure at any publicly-accessible point on the ground that exceeds the maximum exposure permitted by the Federal Communications Commission.

18. Advertising or signage other than warning, equipment information or emergency notification signs on any portion of a tower, monopole, equipment shed, or related facilities shall be prohibited. An emergency notification sign, no greater than six square feet in area, visible from ground level, shall be provided for each site to clearly identify the name(s) of the owner(s) and operator(s) of the tower and the related equipment, and a contact telephone number and address for each. Such emergency notification sign shall be installed at a location acceptable to the Director of Planning.

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wireless facility on public land shall be the avoidance of facilities on or near residential properties.

City Attorney and Staff Comments: This section is designed to make it clear that income is not even a consideration for approving or denying an application and that the primary reason for allowing public lands to be used is to avoid the placement on residential properties. Since very little is known about rates charged throughout the country, a survey may be quite useful.

4. CONCEALMENT TECHNOLOGY

4.1 Definition. "Concealment Technology" is defined as the use of both existing and future technology through which a wireless communications facility is designed to resemble an object other than a wireless communications facility, which is already present in the natural environment, such as a tree. Examples of available existing technology include wireless facilities which are designed to closely resemble trees, street lights, telephone poles and similar objects. Existing technology also includes the use of small "panel" type antennas concealed behind fiberglass panels. Examples of concealment technology may be found in existing facilities in Medina at the Bellevue Christian School and in proposed facilities to be located in the Town of Clyde Hill by Sprint Spectrum, L.P. Additional concealment technology is available which allows installations to blend into their environment, including the use of existing or new vegetation to screen the facilities from observation from roadways and residences.

4.2 Concealment Technology for Equipment Shelters. All shelters for associated equipment needed for the operation of a proposed facility shall be located within an existing non-residential building or underground. Underground shelters shall not extend more than five inches (5") above the existing surface and shall be completely and immediately screened by approved vegetation. Underground shelters shall not be allowed where their presence would interfere with existing uses of public land, such as in established walking trails in City parks.

4.3 Advances in Technology. All applicants must agree to apply any readily available and applicable advances in technology to all existing facilities. For example, if technology becomes available to reduce or eliminate equipment noise from underground shelters, all facilities which have underground shelters shall put the new technology into effect within three (3) months.

City Attorney and Staff Comments: "Concealment Technology" is another term for what is commonly referred to as "Stealth Technology". Technology is readily available, especially at the maximum heights allowed under our zoning regulations, which will make wireless communications facilities difficult for any but the most sophisticated observers to identify. Significant evidence has been presented before the Planning Commission that wireless facilities which are easily recognized as such have a substantial negative impact on the property values of all residences in their immediate vicinity. Evidence also exists that antennas that are not readily recognizable as antennas have less negative effect on property values. These include the two existing cellular facilities in Medina, one of which is concealed as part of the structure of the Bellevue Christian School and the other one of which is hidden from view.

5. TESTING AND TESTING PROTOCOL

5.1 Testing Required. All existing and future wireless communications facilities shall be tested, not less frequently than annually, to determine if the facilities are in compliance with all applicable federal, state and local regulations. Facilities that are in existence at the time these policies are adopted shall be tested within three (3) months after the testing procedures or protocols have been adopted as herein provided. All such testing shall be under City direction and control, at the expense of the applicant.

5.2 Testing Procedures or Protocols. The City Manager is directed to obtain information on testing procedures or protocols and to submit his recommendation for adoption of a specific procedure or protocol. The City Manager's recommendation shall be based upon the availablity and efficiency of the various procedures and protocols that he becomes aware of.

5.3 Regulations. All existing and future wireless communications facilities must comply with all regulations imposed by federal law or FCC regulations. In addition, all wireless communications facilities must comply with any state or local laws or regulations now or hereafter adopted.

5.4 Cooperation. Existing and future wireless service providers shall cooperate with the City in performing the testing required by this policy.

City Attorney and Staff Comments: At the present time, the FCC does not measure any radio emissions. They do not even require actual field measurements. Their approval of a facility is based on projections or computer generated estimates of the nature and strength of transmissions. There are a number of existing protocols described in the literature. The most controversial is "Cobb's Protocol". The Cobb's Protocol does appear to be more extensive than required as it seeks to measure all radio frequency transmissions both before and after installation of a facility. A more reasonable testing procedure might be limited to measurement of transmissions at the frequency expected to be generated by the proposed facility. It is anticipated that measurements should be taken both before and after installation of the facility. The policies give discretion to the City Manager to establish appropriate test procedures and to make appropriate changes, from time to time, based upon advice from city consultants, the industry, the Planning Commission or the City Council. It is anticipated that the City will hire a consultant to make recommendations on testing procedures and to do the testing.

6. CO-LOCATION

6.1 Co-Location on Public Lands. Co-location on public lands is encouraged.

6.2 Co-Location on Private Lands. Co-location on private lands is encouraged.

City Attorney and Staff Comments: Co-location is generally encouraged. As the Planning Commission (hearing examiner) has indicated its willingness to consider all applications, even "minor" applications, the review process has not been changed for co-located facilities. The requirement for the use of concealment technology may eliminate the possibility of co-location in the immediate future. Hopefully, future technology will make co-location possible.

7. DURATION OF PERMITS FOR WIRELESS COMMUNICATIONS FACILITIES

7.1 Length. The duration of a permit for a wireless facility shall be established by the hearing examiner at the time that an application is approved. The length that a permit shall remain in effect shall be not less than one (1) year and not more than five (5) years after the facility has been constructed and put into actual use.

7.2 Considerations Governing Length. In establishing the length of a permit, the hearing examiner may consider all information on this subject provided by the wireless communication provider and all others. The hearing examiner may also require any independent analysis that is deems necessary.

City Attorney and Staff Comments: The duration of wireless permits is a fairly complex issue. Under Medina ordinances prior to 1996, all special use permits are good for an indefinite period of time. Under the 1996 ordinance governing wireless facilities, the duration was set at five (5) years with an indication that any request for renewal would have to demonstrate use of currently available technology. As written, Policy 7.1 would allow the planning commission (hearing examiner) to award per-

1. A diagram or map showing the viewshed of the proposed facility;

2. Photo simulations of the proposed facility from affected residential properties and public rights-of-way at varying distances;

3. A map showing the service area of the proposed WCF and an explanation of the need for that facility;

4. A map showing the locations and service areas of other WCF sites operated by the applicant and those that are proposed by the applicant which are close enough to impact service within the city;

5. A site/landscaping plan showing the specific placement of the WCF on the site; showing the location of existing structures, trees, and other significant site features; and indicating type and locations of plant materials used to screen WCF components and the proposed color(s) for the WCF;

6. A signed statement indicating:

a. The applicant agrees to allow for the potential co-location of additional WCF equipment by other providers on the applicant's structure or within the same site location; and

b. That the applicant agrees to remove the facility within 90 days after that site's use is discontinued;

7. A lease agreement with the landholder that:

a. Allows the landholder to enter into leases with other providers; and

b. Specifies that if the provider fails to remove the facility upon 90 days of its discontinued use, the responsibility for removal falls upon the landholder.

B. Approval of a WCF will occur through the conditional/special use permit process as specified in Chapter 17.56 MMC.

C. The permit fee for each new or renewal permit for each site shall be $5,000 plus all consulting costs as described in MMC 17.44.020. If more than one installation is sought to be approved under a single permit, a full permit fee shall be paid for each installation; provided, that if the facility is exempt from FCC regulation and if the city manager finds that each separate facility is insignificant in terms of aesthetic impact upon the surrounding neighborhood, the city manager may, in his or her sole discretion, reduce the permit fees to be charged. Such reduction may only be made after public hearing on the permit. (Ord. 623 § 5, 1997; Ord. 609 § 7, 1996)

17.90.100 Requirement to demonstrate need.

All applications shall be accompanied with adequate information to demonstrate compliance with the requirements of Medina wireless communications facilities policy number 8 (see MMC 17.90.050). (Ord. 623 § 12, 1997)

17.90.110 Application form – Information to be provided.

All applications shall be submitted on a form to be developed under the supervision and control of the city manager. All such applications, in order to be deemed complete, shall answer all enquiries contained in the application form and shall be accompanied by materials described within the application form. At a minimum, the application form shall require the following information:

A. A complete description of the proposed facility;

B. Coverage maps in a form acceptable to the city;

C. Location map of all sites currently operated by the provider in a five-mile radius of the proposed site, together with all sites for which the applicant holds the development rights, including but not limited to a binding commitment or option to lease a site. For each such site, the targeted area and capabilities of the sites shall be adequately described;

D. All such additional information as the city manager may, from time to time, request through modifications of the application form;

E. All such additional information as the hearing examiner may identify, from time to time, as being relevant to the permitting process. (Ord. 710 § 1, 2001; Ord. 623 § 14, 1997)

17.90.120 Radio frequency standards.

A. The applicant shall comply with federal standards for radio frequency emissions. Within six months after the issuance of its operational permit, the applicant shall submit a project implementation report which provides cumulative field measurements of radio frequency emissions of all antennas installed at the subject site and compares the results with established federal standards. Said report shall be subject to review and approval of the city for consistency with federal standards. If on review the city finds that the WCF does not meet federal standards, the city may revoke or modify this special use permit.

B. The applicant shall ensure that the WCF will not cause interference with the reception of area television or radio broadcasts. If on review the city finds that the WCF interferes with such reception, and if such interference is not cured within 60 days, the city may revoke or modify this special use permit.

C. At the time of application and at all other times requested by the city, the applicant shall supply information as to the number of channels capable of being employed at the site, their individual and combined potential capacities and all other information requested by the city. (Ord. 623 § 6, 1997; Ord. 609 § 8, 1996)

17.90.130 Technological change and periodic review.

A. The city recognizes that WCFs and communication technologies in general are currently subject to rapid change. Innovations in such things as switching hardware and software, transmission/receiving equipment, communications protocols, and development of hybrid cable/wireless systems may result in reducing the impacts of individual facilities and to render specific portions of this chapter obsolete. Therefore, the city shall review this chapter at least every five years or upon request of the city council, city manager, or hearing examiner.

B. At the time of review, the city planner and/or a qualified communications consultant will prepare a written report to be submitted to the hearing examiner and city council that assesses this chapter relative to current trends in the communications industry, innovations in communications technology, permit activity during the previous five years, and effectiveness in producing WCFs that are compatible with the city's residential character.

C. The city planner and/or a qualified communications consultant shall, if necessary, recommend updates to this chapter that may include, but not be limited to, the deletion, modification, or addition of allowed locations; allowed heights; site development requirements; administrative review possibilities; or permitting procedures. (Ord. 710 § 1, 2001; Ord. 609 § 9, 1996)

17.90.140 Testing.

A. Testing Required. All existing and future wireless communications facilities shall be tested, not less frequently than annually, to determine if the facilities are in compliance with all applicable federal, state and local regulations. Facilities that are in existence on the effective date of the ordinance codified in this section shall be tested within three months after the effective date of the ordinance. All testing shall be conducted under the direction and control of the city.

B. Regulations. The city manager shall adopt specific testing procedures and protocols.

C. Revocation of Permit. Any existing or future wireless communications facilities which does not comply with all applicable federal, state and local regulations shall be removed upon failure to bring the facility into compliance after 30 days' advance written notice.

D. Cooperation. All existing and future wireless service providers shall cooperate with the city in performing the testing required by this chapter. Cooperation shall include supplying necessary testing equipment which has current certification from an independent testing laboratory and shall include operating the equipment at up to full capacity and/or shutting off the equipment to allow baseline testing.

E. Baseline Testing. All existing and future wireless service providers shall cooperate with the city in establishing baseline measurements of ambient radio frequency emissions which are present without contribution from the facility. To establish baseline testing, existing wireless service providers may be required to turn off all of their equipment. Future wireless service providers shall notify the city in advance when they are prepared to begin operating their equipment. Future wireless services providers shall not begin to operate their equipment until the city has obtained baseline measurements.

F. Costs. All testing shall be at the cost of the wireless service providers. Failure to pay such costs shall be an adequate basis for the city to revoke all special use permits. (Ord. 623 § 11, 1997)

17.90.150 Permit limitations.

A. A special use permit for a WCF shall expire two years after the effective date of the permit approval. A permittee wishing to continue the use of a specific renewal application to continue that use at least six months prior to its expiration to continue that use at least six months prior to is expiration. In ruling on said renewal the hearing examiner shall apply all regulations in effect at the time of renewal affecting the application.

B. The special use permit shall become null, void and nonrenewable if the permitted facility is not constructed and placed into use within one year of the date of the hearing examiner's approval; provided, that the special use permit may be extended one time for six months if construction has commenced before expiration of the initial year upon payment of an extension fee of $250.00.

C. The permittee/operator of a WCF shall and does, upon approval of this special use permit, agree to indemnify, protect, defend and hold harmless the city, its council members, planning commission members, hearing examiner, officers, employees, agents and representatives from and

time to time, communication towers shall be subject to the provisions of the National Environmental Policy Act (NEPA).

(3) Approval of proposals for tower construction shall be subject to satisfactory completion of an aeronautical study. The resulting FAA aeronautical study shall address the following:

(a) What impact the construction of the tower will have on the Airport's current approach minimums based on a minimum descent altitude and visibility;

(b) What potential impact on the planned improvements will be realized in accordance with the Airport Master Plan; and

(c) Assurance that the FAA Flight Procedures Branch has also made a determination of whether there is an incompatibility with the published instrument approach procedures.

(4) Applicants shall file a Notice of Proposed Construction or Alteration, FAA Form #7460-1 (as amended from time to time) with the Federal Aviation Administration as required by the FAA or applicable Federal law, and forward copies of the form and any FAA response received, via first-class mail, postage pre-paid, to

(a) St. Mary's County Department of Planning and Zoning, P.O. Box 653, Leonardtown, MD 20650;

(b) Captain Walter Francis Duke Regional Airport at St. Mary's (attn: Airport Manager) 44200 Airport Road, California, MD, 20619; and

(c) Department of the Navy, Commanding Officer, Naval Air Station, 22268 Cedar Point Road, Unit NASAD, Patuxent River, MD 20670-1154.

(5) To the extent permitted by law, no tower or equipment or antennae attached thereto shall cause localized interference with reception of television and radio broadcasts, nor shall any tower or equipment or antennae attached thereto interfere with existing lines of communication used for public safety purposes.

(6) Minimum site size, setbacks, and buffers shall be identical to those required for commercial communication towers.

(7) The normal lot setbacks for each district shall apply and may be reduced pursuant to Section 61.7, where applicable.

89. ***Communication Tower, Commercial.***

a. *General Standards.* Commercial communication towers shall meet the general standards and purpose for public safety communications towers.

b. *Conditional Standards:*

(1) The application submitted by the applicant to the Board of Appeals for a commercial communication tower, shall satisfactorily address the requirements for conditional use applications as defined by the zoning ordinance for any conditional use whatsoever, as amended from time to time, and shall in addition include the following:

(a) A system design plan that shall include, at a minimum, radio frequency parameters, tower height; number and location of antennae on the tower, all existing or proposed buildings within the "fall zone"; radio frequency output; effective radiated power; and azimuth antenna type.

(b) A signal coverage/propagation map of the area to be served by the proposed tower. The propagation map shall show signal intensity in dBm (for at least three signal intensities). The propagation map shall also show major roads and major developments, towns, villages, etc. The County reserves the right to request propagation maps for other sites or height alternatives.

(c) The signal coverage/propagation map shall show coverage area available under existing towers with co-location opportunities, approved towers and antennae/equipment installed on other structures (water towers, buildings, etc.).

(d) Evaluation of the tower's relationship to other antenna sites, existing off-site structures taller than 50 feet, communication towers, and water tanks within a two mile radius of the proposed tower. Verifiable evidence must be provided of the lack of space or unsuitability of any existing tower or structure within that search radius.

(e) A detailed engineering analysis of the proposed new tower, including a summary of the proposed tower's capacity to provide space for future co-location by others.

(f) Federal Communications Commission review, evaluation and approval under the National Environmental Policy Act of 1969, and applicable Federal Communication Commission regulations and standards through the Office of Engineering and Technology as required by federal law.

(g) The specific type of tower to be constructed and the proposed materials to be used in the construction of the tower.

(h) The design of the proposed tower shall be sealed by a licensed engineer licensed to practice in the State of Maryland.

(i) Identification of all noise, odor and other potential nuisance producing facilities, appurtenances and/or outbuildings, or the like, that are associated with the proposed use.

(j) Identification of the maximum number of antennae and co-location spaces that can safely be placed on the tower. An engineering statement must be submitted certifying that the proposed tower can accommodate a minimum of three users, however, a minimum of five is preferred. If this is not possible, a justification statement must be provided that is based on structural, height, radio frequency or engineering limitations.

(k) An elevation drawing, depicting the tower at its proposed height, with all planned antennae/equipment shown.

(l) A visual impact study, including photo-simulations, demonstrating that a proposed tower shall not unreasonably interfere with the view of, or from sites of significant public interest such as a public park, a state or county designated scenic road or river, or a structure on the historic sites survey or in a historic district, located within two miles of the proposed tower site. The Department of Planning and Zoning staff may request, and the Board of Appeals may require the applicant to conduct a balloon or crane test and to submit additional photo-simulations or a line-of-sight analysis documenting the visual impact the proposed tower may have on surrounding sites. The applicant shall provide the County and adjacent property owners with at least a 48-hour notice of the test. If the applicant's visual impact analysis relies upon an existing tree buffer on the subject property (but outside the

lease area), the applicant, as a condition of approval, shall secure an easement to preserve/protect that buffer for the duration of the conditional use.

(m) An engineering statement prepared by a licensed professional engineer certifying that the proposed facility will meet or exceed all regulatory emissions standards established by the FCC. This statement shall identify the predicted exposures for the specific equipment proposed along with the allowable federal limit of exposure. If future co-location occurs on the tower, then emissions statements shall be provided for each co-locator.

(n) An engineering statement prepared by a licensed professional engineer describing the contained fall design for the tower in the event of a structural failure. The facility shall be designed to collapse within the lease area, unless approval is granted from the owner(s) of the affected parcel.

(o) Evidence that at least one telecommunications carrier has agreed to locate antennae on the tower.

(p) A plan that describes company plans for new towers or antenna placements within the entire County during the next two years. The plan shall include propagation maps (showing at least three different signal intensities in dBm) that depict existing and proposed sites and describe the anticipated timing for proposed sites. Thereafter, each company that owns the tower, or places telecommunications equipment on the tower, must submit an annual plan that describes the company's plans for new towers or antenna placements within the County in the next two years. For each tower owner, this document will also identify what equipment is placed on each tower, the height at which the equipment is placed, and the owner of the equipment. The plan described in this section need only be prepared one time during the year and does not need to be revised with each application submitted during the period of coverage.

(q) All fees for the costs of any technical review of the application by an independent consultant hired by the County.

(2) The applicant for a new commercial communications tower shall demonstrate to the Board of Appeals that co-location on existing commercial towers, public safety towers, or other appropriate structures is not feasible. Feasibility shall be demonstrated by an analysis and explanation prepared by a licensed professional engineer that identifies why other existing or proposed towers within a two-mile radius cannot be used. The analysis must evaluate any reasonable, technically feasible alternative locations and/or facilities that would provide the proposed communication service and provide a structural analysis indicating that no existing or proposed tower can be structurally modified to meet the applicant's needs. Replacement of an existing approved tower with a new tower on the same site shall be an alternative addressed in the analysis.

The intention of analyzing the alternatives analysis is to present alternative strategies that would minimize the number, size, and adverse visual, environmental, and public safety impacts of facilities necessary to provide the needed services to the County. The analysis shall address the potential for co-location at an existing or new site and the potential for locating facilities as close as possible to the intended service area. It shall also explain the rationale for selection of the proposed site in view of the relative merits of any of the feasible alternatives. Physical constraints may be considered but will not be

determinative. Approval of the project is subject to the Board of Appeals making a finding that the proposed site results in fewer or less severe impacts than any feasible alternative site.

(3) Co-location is not deemed possible if the Board of Appeals finds that:

(a) Planned equipment would exceed the structural capacity of existing and approved towers or towers proposed to be constructed, considering existing and planned use of those towers, and such towers cannot be feasibly structurally modified or reinforced to accommodate planned or equivalent equipment. In the case of existing towers owned by the applicant, the applicant shall have demonstrated to the Board of Zoning Appeals that a new (replacement) tower cannot be constructed on the existing approved site to satisfy its new requirements.

(b) Planned equipment will cause interference with other existing or planned equipment for the tower, and the interference cannot be prevented.

(c) Existing, approved towers, or towers proposed to be constructed do not have space on which to place planned equipment so it can function effectively; or

(d) Existing, approved towers, or towers proposed to be constructed, will not provide reasonable signal coverage that is appropriate for St. Mary's County (-.89 dbm) (demonstrated through propagation maps showing signal coverage).

(4) The tower shall be constructed so as to provide adequate capacity for future co-location of other commercial and/or government-operated antennae, unless the applicant demonstrates why such design is not physically feasible. The system design plan shall delineate areas near the base of the tower to be used for the placement of additional equipment buildings for other users.

(5) No signals, lights or illumination shall be permitted on the tower unless required by the Federal Communications Commission, the Federal Aviation Administration, or the County.

(6) No commercial advertising or other signage shall be permitted on the tower.

(7) All obsolete or unused facilities, including buildings, towers, and all other improvements associated with the tower, shall automatically be deemed abandoned upon 24 months of continuous cessation of operations and shall be removed at such time without cost to the County. The applicant shall provide a bond, letter of credit, or other appropriate surety at time of approval as approved by the County to cover the cost for demolition of the facility and site restoration.

(8) Towers shall be constructed at the minimum height required to obtain reasonable signal coverage that is appropriate for St. Mary's County (-89 db). Towers exceeding a height of 199 feet above existing grade shall require detailed engineering justification, documenting the basis for determining that a taller structure is required. Towers exceeding 199 feet above existing grade may also be justified by demonstrating that the existence of previously approved tower(s) in the vicinity of the proposed site serves to mitigate visual impacts, or that a single (taller) tower will reduce adverse visual impact by replacing multiple existing towers.

(9) The site shall be large enough to accommodate the tower and all related structures, equipment and appurtenances (whether above or below ground), and of a size sufficient to meet Health Department standards if water and sanitary facilities are provided. The site plan shall depict the tower site, the location of

all structures, equipment and appurtenances to be installed with the tower (whether located above or below ground), all existing tree buffers on the subject property, all adjoining properties; means of ingress/egress; and all required setback lines.

(10) In addition to any setbacks otherwise required by the Zoning Ordinance, towers shall require a setback distance of 100 percent of the height of the tower from any residence, historic site, building or other structure not associated with the tower site. If the setback is to be on an adjoining property, a notarized statement of agreement or an easement must be obtained from the adjoining property owner. If the communications tower is proposed along a state or County scenic roadway, then a setback from the road of 300 percent of the height of the tower and additional landscaping, or additional screening may be required by the Board of Appeals.

(11) The tower enclosure shall be buffered from adjoining properties with at least two rows of fast growing evergreen species such as red cedar or Leyland cypress. The County reserves the right to require a different vegetated buffer as part of the conditional use approval.

(12) No commercial communication tower shall be constructed within the Critical Areas as shown on the Official Zoning Maps.

(13) The County shall have the right of first refusal to any available collocation space on a tower at no cost to the County; provided, however, that the County shall be responsible for maintaining its own equipment.

(14) Contact information shall be prominently displayed on the fence enclosing each facility. This information shall be current and shall identify the company name, responsible individual, and phone number for the contact person.

90. ***Freight Terminal.***

a. *General Standards. (reserved).*

b. *Limited Standards.* Facility shall provide sufficient queuing space for anticipated volume over the peak one hour period (based on an analysis of the anticipated traffic volume submitted by the applicant).

91. ***Passenger Terminal.***

a. *General Standards;*

(1) Site parking and circulation layout shall provide sufficient queuing space for anticipated volume over the peak one hour period (based on an analysis of the anticipated traffic volume submitted by the applicant);

(2) Security lighting (lights, including lighting for signs shall not shine directly onto an adjacent property or produce glare) shall be provided; and

(3) A covered drop-off/pick up/waiting area shall be provided at primary entrance.

b. *Limited Standards.* Accessory garages for routine vehicle maintenance shall be prohibited.

92. ***Regional Flood and Storm Water Management Facility.***

a. *General Standards;*

(1) In the Critical Areas, regional flood and storm water management facilities may be permitted in the RCA if they serve only development in that zone.